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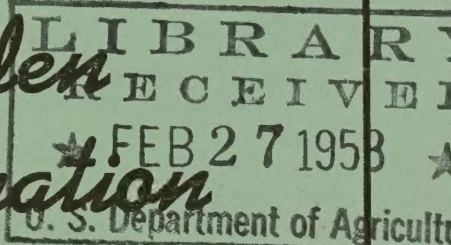
OFFICE OF
**HOWARD LAKE & VICTOR
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Howard Lake, (Wright Co.) Minn.



*Garden
Information*



Prepared by

**THE MINNESOTA STATE
HORTICULTURAL SOCIETY**

*The Largest Horticultural Society
in the Mid-West*

Office at University Farm, St. Paul 1, Minn.

Join THE MINNESOTA STATE HORTICULTURAL SOCIETY

You will receive information such as is contained in this folder—REGULARLY.

This society, supported in part by the state, has for its work the securing and dissemination of knowledge pertaining to tree, fruit, flower, and vegetable growing, and related topics.

THE MINNESOTA HORTICULTURIST

All members receive this outstanding magazine on horticulture in the North. It contains authoritative and up-to-date information about fruits, vegetables, and ornamental plants in this region. Nine issues are published each year.

LOAN LIBRARY

Books are loaned to members for periods of two weeks under simple restrictions. Books can be mailed to you.

MEETINGS

The society holds its annual meeting in the fall. Leaders in horticultural activities are invited to speak. There are exhibits of flowers, fruits, vegetables, and other products.

A tour is held each year at the University of Minnesota Fruit Breeding Farm near Excelsior.

MEMBERSHIP

You are invited to become a member. Simply mail your membership fee (\$1.50 for 1 year), (\$5.00 for 4 years), or (\$25.00 for life) to

THE MINNESOTA STATE HORTICULTURAL SOCIETY

University Farm, St. Paul 1, Minn.

ORGANIZE A GARDEN CLUB

Members of garden clubs in Minnesota are eligible for reduced membership rates. If your community does not have a garden club write for information regarding assistance in forming one.

FRUITS RECOMMENDED FOR PLANTING IN MINNESOTA

Prepared by the Fruit List Committee of the Minnesota State Horticultural Society and adopted by the Society September 29, 1950.

MINNESOTA FRUIT DISTRICTS

The state is divided into four fruit districts, the most favorable being District No. 1.

The varieties in this list are arranged according to approximate time of harvest.



CHARACTERS USED IN TABLES

C—Commercial as well as home use.

H—Home orchard or garden.

P—Winter protection desirable.

*—For favorable sites and soils only. Do not select these varieties for unfavorable situations; for apples and pears this would include the heavy alkaline soils in the Red River Valley, very sandy soils, and unprotected sites.

**—Avoid planting near eastern and western red cedar *Juniperus virginiana*, *J. scopulorum* and most horticultural varieties of *J. virginiana* because of susceptibility to apple cedar rust.

(Topwork)—Topworking may be expected to prolong the productive life of certain varieties. It is highly desirable for Jonathan, Delicious and Golden Delicious.

CROSS-POLLINATION

To improve the fruitfulness of orchard fruits through cross-pollination it is desirable to include at least two different varieties of each fruit selected for planting. Most plums and cherry plums require special pollinizers.

APPLES: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Transparent			H*
Oriole (Minn. No. 714)	C	C*	H*
Melba	H	H	H*
Erickson	C	C	H
Duchess, including red sports	C	C	H*
Beacon**	C	C	H*
Wealthy** (topwork suggested)	C		
Wealthy (topwork recommended)		C	H*
Hibernal			H
Patten			H
Minjon	C	C	H*
McIntosh (topwork suggested in Dist. 2)	C	C*	
Cortland (topwork suggested)		C	H*
Northwestern (topwork suggested)	C		
Northwestern (topwork recommended)		C*	
Haralson	C	C	H
Prairie Spy	C	C	H*
Delicious, incl. red sports (topwork recommended)	C	H*	
Golden Delicious (topwork recommended)	H	H*	
Jonathan** (topwork recommended)	C	H*	
Fireside (Minn. No. 993)	C	C	H*

APPLES: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Mantet	C	C	H*
Red Van Buren	C	C	H*
Lakeland	C	C	H*
Victory	C	C	H*
Redwell	C	C	H*

CRAB APPLES: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Dolgo	C	C	H
Whitney	C	C	H
Chestnut	C	C	H
Virginia			H

CRAB APPLES: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Rescue	C	C	H
Trail			H

APPLES: STOCKS FOR TOPWORKING

Variety recommended: Hibernial. Virginia recommended for limited use, chiefly for Jonathan and McIntosh. Of probable value: Dolgo, Erickson, Patten.

NUT FRUITS: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Winkler (hazel)	H	H	
Thomas (walnut)	H	H	
Ohio (walnut)	H	H	
Stambaugh (walnut)	H	H	

PEARS: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Bantam (Minn. No. 3)	H	H	H*
Parker (Minn. No. 1)	H	H*	
Patten	H	H*	
Mendel	H	H*	
Golden Spice (Minn. No. 4)	H	H	H*
Golden Spice (Minn. No. 4) suggested as understock for topworking.			

PEARS: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Lincoln	H	H	

HYBRID PLUMS: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
La Crescent (needs pollinizer)			H
Underwood (needs pollinizer)	H	H	H
Redcoat (Minn. No. 17) (needs pollinizer)	H	H	H
Pipestone (Minn. No. 218) (needs pollinizer)	H	H	H
Kaga (pollinizer)	H	H	H
Fiebing (needs pollinizer)			H
Redglow (Minn. No. 101) (needs pollinizer)	H	H	H
Superior (needs pollinizer)	H	H*	
Toka (pollinizer)	H	H	H
South Dakota (S. D. No. 27) (pollinizer)	H	H	H
Elliot (needs pollinizer)	H	H	H*
Ember (needs pollinizer)	H	H	H*
Hybrid plums are not recommended for the North Shore.			

EUROPEAN PLUMS: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Dietz	H	H*	
Bonne St. Anne	H	H*	
Stanley	H	H*	
Mount Royal	H	H*	
Krikon Damson	H	H	

CHERRY-PLUMS: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Oka (needs pollinizer)	H	H*	
Opata (needs pollinizer)			H
Sapa (needs pollinizer)	C	C	H*
Compass (pollinizer)	H	H	H

CHERRY-PLUMS: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Sapalta (needs pollinizer)	C	C	C*
Convoy (pollinizer, compass type)	C	C	C
Manor	C	C	C

CHERRIES: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Drilea (Nanking cherry)	H	H	H
Orient (Nanking cherry)	H	H	H
Northstar (true sour cherry)	H	H	H*

GRAPES: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Beta (blue)	H	H	H
Bluejay (blue) (needs pollinizer)	H	H	HP
Red Amber (red)	H	H	HP
Moonbeam (white)	H	HP	HP
Campbell Early (blue)	H	HP	
Portland (white)	H	HP	
Bluebell (blue)	H	H	HP
Worden (blue)	H	HP	
Concord (blue)	H	HP	

RED CURRANTS: RECOMMENDED VARIETIES‡

Fruit Districts	1	2	3-4
Red Lake	C	C	C
Cascade	H	H	H
Viking			H

GOOSEBERRIES: RECOMMENDED VARIETIES‡

Fruit Districts	1	2	3-4
Como (green)	H	H	H
Pixwell (red)	H	H	H

‡ In certain areas the planting of currants and gooseberries is subject to a Blister Rust Control Area Permit, obtainable from the Department of Conservation, State Office Building, St. Paul.

RASPBERRIES: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Chief (red)		H	C
King (red)	C	C*	
Newburgh (red) (see note below)	C	C*	C*
Latham (red)	C	C	C
Cumberland (black)	H	H	H
Morrison (black)	H	H	H
Sodus (purple)	H	H	H*

Winter protection recommended for all varieties.

NOTE—Newburgh recommended for Duluth area. Elsewhere irrigation recommended.

RASPBERRIES: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Indian Summer†† (red)	H	H	H
Madawaska (red)	H	H	H
Taylor (red)	C	C*	C*

Winter protection recommended for all varieties.

††Fall crop not dependable.

STRAWBERRIES: RECOMMENDED VARIETIES

Fruit Districts	1	2	3-4
Junebearing:			
Premier	C	C	C
Beaver (for sandy soils)	C	C	C
Dunlap	C	C	C
Robinson (Scarlet Beauty)			C
Arrowhead (Minn. No. 1118)	C	C	C
Burgundy (needs pollinizer)	H	H	H
Everbearing:			
Evermore (Minn. No. 1166)		C*	C*
Gem (leading variety)	C	C	C
Wayzata (poor plant maker)	C	C	C
Protect by mulching, all districts.			

STRAWBERRIES: SUGGESTED FOR TRIAL

Fruit Districts	1	2	3-4
Robinson (Scarlet Beauty) (Junebearing)	C	C	C
Red Rich (Everbearing)	C	C	C
Protect by mulching, all districts.			

UNNAMED MINNESOTA FRUIT BREEDING FARM PRODUCTIONS SUGGESTED FOR TRIAL

Apples: Minn. Nos. 724, 790.

Grape: Minn. No. 78*.

Korean Cherries: Minn. Nos. 20, 23, 57, 60.

Nanking Cherry: Minn. No. 41.

Plums: Minn. Nos. 89, 225.

Red Currant: Minn. No. 69.

Red Raspberry: Minn. No. 321.

Sour Cherries: Minn. No. 66.

*Probably suitable for all districts.

PLANTING DISTANCES FOR FRUITS

Apples (Districts 1-2)	Pears—18 to 20 ft.
30 to 35 ft.	Currants—4x6 ft.
Apples (Districts 3-4)	Gooseberries—4x6 ft.
25 to 30 ft.	Grapes—8x8 ft.
Apples (filler system)	Or 8x10 ft.
35x40 ft.	Red Raspberries (hills)
Hybrid Plums	4 to 4½x6 ft.
20 to 22 ft.	Red Raspberries (hedge)
Cherry Plums	2 to 3x6 ft.
14x16 ft.	Black or Purple Raspberries
Strawberries (June)	4½x7 ft.
18 to 24 in. x 4 ft.	Strawberries (Everbearing)
	18 in. x 3½ ft.

The number of plants required for one acre may be determined by multiplying the distance apart each way (in feet) and dividing the product into 43,560.

EVERGREENS

Trees for Lawn Specimens, Screens, or Backgrounds

*White Fir (*Abies concolor*), *Norway Spruce (*Picea abies*),
*White Spruce (*Picea glauca*), Colorado Spruce (*Picea pungens*), Ponderosa Pine (*Pinus ponderosa*), **Red Pine (*Pinus resinosa*), **Eastern White Pine (*Pinus strobus*),
Scotch Pine (*Pinus sylvestris*), *Douglas Fir (*Pseudotsuga taxifolia*).

*Plant on heavier soils south of Twin Cities.

**Plant on heavier soils in eastern and northern Minnesota.

*Medium, Upright—Foundation and Border Plantings

Eastern Red Cedar (*Juniperus virginiana* and varieties), Rocky Mountain Juniper (*Juniperus scopulorum* and varieties),
**Japanese Yew (*Taxus cuspidata*), **Eastern Arborvitae (*Thuja occidentalis*), **Pyramidal Arborvitae (*Thuja occidentalis pyramidalis*), **Siberian Arborvitae (*Thuja occidentalis wareana*).

*May require shearing to keep them compact.

**Needs a moist, protected spot; good on north side of house.

Low or Spreading—Foundation and Border Plantings

Pfizers Juniper (*Juniperus chinensis pfizeriana*), Common Juniper (*Juniperus communis depressa*), Savin Juniper (*Juniperus sabina*), Mugho Pine (*Pinus mugo mughus*), *Japanese Yew (*Taxus cuspidata*—dwarf varieties), Woodward Globe Arborvitae (*Thuja occidentalis woodwardi*).

*Requires moist, protected sites; will grow in shade.

Creeping—Rock Gardens, Banks, and Foundation Plantings

Waukegan Juniper (*Juniperus horizontalis douglasi*), Andorra Juniper (*Juniperus horizontalis plumosa*).

DECIDUOUS TREES AND SHRUBS

Plant those marked (*) in moist, protected sites.

Large Trees for Large Grounds

Norway Maple, Silver Maple, Sugar Maple, Common Hackberry, Green Ash, Black Walnut, American Linden or Basswood, American Elm.

Medium to Small Trees for Small Grounds

Ohio Buckeye, Paper Birch, Russian Olive, Bolleana Poplar, Mayday Tree, *Weeping Willow, *American Mountain Ash, *European Mountain Ash.

Very Large Shrubs or Small Trees

Amur Maple, Shadblow Serviceberry, Siberian Peashrub (*Caragana arborescens*), Hawthorns, European Euonymus, Amur Honeysuckle, Flowering Crabapples (*Malus*—varieties Hopa, Eley, Bechtel, Red Silver, and others), Purpleleaf Plum (*Prunus am.* var. Newport).

Large Shrubs for Border and Foundation Plantings

Tatarian Honeysuckle, Common Lilac, Chinese Lilac, Late Lilac, Smooth Sumac, Staghorn Sumac, Silver Buffaloberry, *Eastern Wahoo (*E. atropurpureus*), *Sweet Mockorange (*P. coronarius*), *American Elder, *European Red Elder, *Wayfaring Bush, *Nannyberry, *American Highbush Cranberry.

Medium Shrubs for Border and Foundation Plantings

Russian Peashrub (*Caragana frutex*), Peking Cotoneaster, European Cotoneaster (*C. integerrima*), Cistena Sandcherry, Nanking Cherry, Flowering Plum, Vanhoutte Spirea, *Siberian Dogwood, *Gray Dogwood, *Redosier Dogwood, *Winged Euonymus, *Peegee Hydrangea, *Amur Privet, *Morrow Honeysuckle, *Virginalis Mockorange, *Common Ninebark, *Clove or Golden Currant, *Arrowwood.

Small Shrubs for Foundation and Border Plantings

Flowering Almond (*P. glandulosa*), Threelobe Sumac, Rugosa Rose, Threelobe Spirea, Garland Spirea, *Japanese Barberry, *Snowhill Hydrangea, *Lemoine Mockorange, *Dwarf Ninebark, *Alpine Currant, *Ash-leaved Spirea (*Sorbaria sorbifolia*), *Billiard Spirea.

Dwarf Shrubs for Foundation and Border Plantings

Bush Cinquefoil (*Potentilla fruticosa*), Russian Almond (*Prunus tenella*), *Slender Deutzia, *Anthony Waterer Spirea, *Froebel Spirea, *Chenault Coralberry, *Indiancurrant Snowberry, *Common Snowberry, *Littleleaf Mockorange (*P. microphyllus*).

VINES

Englemann Creeper, Boston Ivy, American Bittersweet, Everblooming Honeysuckle (*L. heckrottii*), Jackman Clematis, Virginia Bower, Dutchmans Pipe, Common Moonseed.

HEDGES

Tall, Untrimmed—Siberian Peashrub (*C. arborescens*), Tatarian Honeysuckle, Sweet Mockorange, Chinese Lilac, Common Lilac. *Medium, Untrimmed*—Peegee Hydrangea, Virginalis Mockorange, Vanhoutte Spirea. *Small, Untrimmed*—Meadow Rose (*Rosa blanda*), Rugosa Rose, Garland Spirea. *Tall, Trimmed*—Amur Maple, Dahurian Buckthorn (*R. davurica*), Glossy Buckthorn (*R. frangula*), Arborvitae. *Medium, Trimmed*—Peking Cotoneaster, Amur Privet. *Low, Trimmed*—Japanese Barberry, Dwarf Ninebark, Alpine Currant.

WINDBREAKS

Low Shrubs for Snow Traps—Caragana, Buffaloberry, Lilac, Crabapple, Plum, Honeysuckle. *Fast-growing, Short-lived Trees*—Cottonwood, Willow, Box Elder, Soft Maple, Chinese Elm. *Hardy, Long-lived Trees*—Green Ash, American Elm. *Evergreen Trees*—Ponderosa Pine (from the Black Hills), Norway Pine, White Spruce, Black Hills Spruce.

PERENNIALS

Tall Perennials for Beds and Borders

ALTHEA (Hollyhock), *ANCHUSA*, *ASTER*, *ATROPA* (Belladonna), *BAPTISIA*, *BOLTONIA*, *ASTEROIDES*, *DELPHINIUM*—hybrids, *HELENIMUM*, *HEMEROCALLIS*, Daylily, *IRIS*—bearded and Siberian, *LIATRIS*, *LILLIUM* (Tigerlily), *LUPINE*, *RUDBECKIA* (Coneflower, Black-eyed-susan, goldenglow).

Medium-height Perennials

ACHILLEA (Yarrow), *ANTHEMIS* (Marguerite), *ARTI-MISIA LACTIFLORA* (White mugwort), *AQUILEGIA* (Col-umbine)—American long-spurred hybrids, *CENTAUREA DEALBATA*, *CHRYSANTHEMUM* (Garden varieties of Florists chrysanthemum, Florists pyrethrum or painted daisy, Shasta Daisy, Giant Daisy and Alaska Daisy), *COREOPSIS*, *DICENTRA* (Bleedingheart), *DICTAMNUS* (Gasplant), *GAILLARDIA*, *GYPSOPHILA* (Babysbreath), *HESPERIS* (Dames Rocket), *HEUCHERA* (Coralbell), *HOSTA* (Plantain-lily), *LILIUM* (Coral lily, Elegans lily and various varieties), *LINUM* (Flax), *LYCHNIS*, *LYTHRUM*—Morden pink lythrum, *MONARDA DIDYMA* (Oswego beebalm), *PAPA-VER* (Oriental poppy), *PENSTEMON*—glaber, grandiflorus, secundiflorus, torreyi; *PEONY*, *PHLOX*, *SAXIFRAGA CORDIFOLIA*, *STATICE* (Sealavender), *THALICTRUM* (Meadowrue), *TROLLIUS* (Globeflower), *VERONICA*.

Low Perennials

ALYSSUM SAXATILE (Goldentuft alyssum), *ARABIS* (Rockcress), *CAMPANULA CARPATICA* (Bellflower), *CAM-PANULA PERSICIFOLIA* (Peachleaf bellflower), *CAM-PANULA ROTUNDIFOLIA* (Bluebell), *DIANTHUS* (Hardy Pinks), *IBERIS SEMPERVIRENS* (Candytuft), *PAPAVER* (Iceland poppy), *MERTENSIA* (Virginia Bluebell), *PHLOX* (Wild sweet william, moss phlox, woods phlox), *POLE-MONIUM REPTANS* (Creeping Jacobs ladder), *SCABIOSA CAUCASICA*, *SEDUM*—acre, aizoon, album, middendorffianum, sarmentosum, spectabilis, spurium; *VIOLA*.

Bulbs

Lilies—Various varieties.	<i>Scilla sibirica</i> (R).
Tulips (R)—Species and va- rieties.	<i>Crocus</i> (R).
Narcissus (R)—Poets, Daf- fodil (T), Barri (T), Leeds (T).	Grape Hyacinth (RT).

(R) Suitable for rock gardens.

(S) Will endure more or less shade.

(T) Requires special protection for wintering.

Dahlias

Recommended by the Minnesota Dahlia Society

WHITE—The Real Glory, Michigan White, Great Lakes. *YELLOW*—Ginger Rogers, Van's Yellow, Prairie Sun. *AU-TUMN*—Kirsten Flagstad, Sunrays, Evelyn Chandler. *RED*—Mrs. Hester A. Pape, Murphy's Masterpiece, Maffie. *PINK*—Wosal, Kelvin, Victory. *PURPLE*—King David, Hunts Velvet Wonder, Jean Trimbee. *LAVENDER*—Bette Davis, Commando (Pecks), Southern Thoroughbred. *BI-COLOR*—Jane Lausche, Lois Walcher, Cornell. *BLEND*—Five Star General, Autumn Blaze, Roselyn Straight. *VARIEGATED*—Dixie's Wine-Dot, Haslerova, Figaro. *CACTUS*—Crowning Glory, Bedford Beauty, Snowball, Pink Flamingo, Nancy Ann Mitchell, Allegresse, Purple Heart, Orange Nassau, Flash. *POMPONS*—Ila, Brass Button, Mrs. Telfer, Sherry, Betty Ann, Morning Mist, Clover, Paretje, Betty Malone, Mary Mums. *MINIATURES*—Dubonnett, White Fawn, Arabeske, T. P., Elvira, Buckeye Baby, Little Jennie, Little Diamond, Fairy, Ming, Bright Idea, Andries Orange.

GLADIOLUS

Favorite varieties as indicated by the Fifth Annual Popularity Poll of the Minnesota Gladiolus Society.

WHITE—Florence Nightingale, Silver Wings, Snow Princess. **CREAM**—Leading Lady, Salmons Glory. **YELLOW**—Spotlight, Crinkle Cream. **BUFF**—Sunspot, Arethusa, Susquehanna. **ORANGE**—Daisy Mae, Orange Gold. **SALMON**—Genghis Khan, Picardy. **SCARLET**—Dieppe, Algonquin. **PINK**—Spic & Span, Phantom Beauty, Beauty's Blush. **RED**—Red Charm, Mid-America, Stoplight. **BLACK-RED**—Black Opal, Black Panther. **ROSE**—Burma, Miss Wisconsin. **LAVENDER**—Elizabeth the Queen, Wedgewood, Huntress. **PURPLE**—Purple Supreme, Lancaster. **VIOLET**—Abu Hassan, Blue Beauty. **SMOKY**—Oklahoma, Tunia's Mahomet, High Finance. **ANY OTHER COLOR**—Vagabond Prince, Buckeye Bronze. **SMALL**—Atom, Orange Butterfly, Saint Paul, Starlet. **MINIATURES**—Kewpie, White Satin.

Irisés and Peonies

Recommended by Minnesota Peony & Iris Society *Irisés*

WHITE—Matterhorn. **Blue-black**—Sable. **YELLOW**—Ming Yellow. **Dark Blue**—Missouri. **PINK**—Angelus. **Light blue**—Great Lakes. **RED**—Garden Magic. **Plicata**—Los Angeles. **ORANGE-BROWN**—Radiant. **Blend**—Prairie Sunset. **PURPLE**—Indian Hills.

Peonies

WHITE—Mrs. J. V. Edlund, LeCygne, Kelway's Glorious, Avalanche, Elsa Sass. **FLESH**—La Lorraine, Alice Harding, A. B. Franklin. **LIGHT PINK**—Hansina Brand, Myrtle Gentry, Minuet, Sarah Bernhardt, Nich Shaylor. **DARK PINK**—Blanche King, Marie Crousse, Souv. de Louis Bigot, Martha Bullock. **RED**—Philip Rivoire, Mary Brand, Vic. de La Marne, Karl Rosenfield.

ROSES

Recommended by Minnesota Rose Society

Everblooming Climber, New Dawn, White Dawn. **Everblooming shrub-type**—Grootendorst. **Nearly Wild**. Schneezweg, Blanc Double de Coubert, Amelia Gravereaux. **Hybrid teas**—Crimson Glory, Charlotte Armstrong, Etode de Hollande, Radiance (red, pink and shell-pink), Lady Ashtown, Santa Anita, Christopher Stone, Tally Ho, Sutter's Gold, Nocturne, McGredy's Scarlet, Soeur Therese, Dainty Bess. **Sub-zero HT's**—Pink Princess, Curly Pink, Lily Pons, Break O'Day, Shades of Autumn, King Boreas, V for Victory. **Floribundas**—Eutin, Hythe Cluster, all the Pouslens, Betty Prior, World's Fair Donald Prior, Ming Toy, Fashion, Summer Snow.

VEGETABLES

Varieties Suggested for the Home Garden

*Tested and found suitable for freezing.

Asparagus—Washington.

Bush Beans, Yellow—Cherokee* Puregold, Brittle Wax*.

Bush Beans, Green—Topcrop*, Logan*, Tendergreen*.

Pole Beans—Kentucky Wonder*, Stringless Blue Lake*.

Lima Beans, Bush—Henderson*, Burpee Improved*, Triumph*.

Lima Beans, Pole—King of the Garden.

Beans, Dry or Field—Great Northern, Brown Swedish, Red Kidney, Michelite.

Beets—Detroit Dark Red*, Early Wonder.

Broccoli—Italian Green Sprouting (Calabrese)*, De Cicco.
 Brussels Sprouts—Long Island.
 Cabbage, Early—Golden Acre.
 Cabbage, Late—Danish Ballhead, Penn State Ballhead, Hollander Short Stem.
 Cabbage, Yellows Resistant—*Early*—Resistant Detroit, Racine Market. *Late*—Wisconsin Hollander.
 Cabbage, Chinese—Chihili.
 Carrots—Nantes*, Danvers Half Long, Red Cored Chantenay*, Imperator*.
 Cauliflower—Snowball*, Super Snowball*, Snowdrift*.
 Celery—Golden Self Blanching, Utah.
 Corn, Sweet—*Early*—North Star, Golden Rocket*, Golden Midget*. *Midseason*—Golden Cross Bantam*, Golden Freezer. *Late*—Stowells Evergreen, Country Gentleman.
 Corn, Pop—Minnhybrid No. 250, Iopop No. 5.
 Cucumber, Slicing—Burpee Hybrid, Faribo Hybrid "C," Cubit, A-C, Marketer.
 Cucumbers, Pickling—National Pickling, Chicago Pickling, Mincu, York State Pickling.
 Eggplant—Badger State, Black Beauty*, New Hampshire.
 Endive—Green Curled, Florida Deep Heart.
 Kale—Dwarf Curled*.
 Kohlrabi—Early White*, Purple Vienna*.
 Lettuce, Leaf—Grand Rapids, Black Seeded Simpson, Slobolt.
 Lettuce, Head—Pennlake, Progress, Premier, Great Lakes.
 Muskmelon—*Early*—Far North, Minnesota Midget. *Midseason*—Iroquois*, Golden Gopher*, Sugar Rock*, Pride of Wisconsin.
 Onion—Yellow, Red, and White Globes; Utah Sweet Spanish, Michigan Sweet Spanish, Prizetaker, Bermuda.
 Onion, Perennial—White Welsh, Egyptian.
 Parsley—Dark Moss Curled.
 Parsnip—Improved Hollow Crown*, All American, Short Thick.
 Peas—*Early*—Little Marvel*, Burpeana Early Dwarf*, Laxtons Progress*, Freezonian*. *Midseason*—Wando*, Lincoln*, Oneida, Victory Freezer*. *Late*—Alderman*, Telephone*.
 Peppers—King of the North, Sunnybrook, Calwonder, Oakview Wonder, Pennwonder, Long Red Cayenne.
 Potatoes—*Early*—Red Warba, Waseca, Cobbler. *Midseason*—Kennebec, Pontiac. *Late*—Green Mountain, Sequoia.
 Pumpkin—Winter Luxury, Small Sugar, Cheyenne Bush.
 Radish—Cherry Belle, Early Scarlet Globe, Cavalier, White Icicle.
 Rhubarb—Valentine*, Canada Red*, Ruby, MacDonald Crimson*.
 Rutabaga—Laurentian, American Purpletop*, Golden Necklace.
 Spinach—New Zealand.
 Spinach—Bloomsdale Long Standing*, Virginia Savoy, King of Denmark*, Old Dominion.
 Squash, Summer—Golden Straightneck*, Yankee Hybrid, Improved Zucchini*, Caserta.
 Squash, Winter—Buttercup*, Greengold*, Kitchenette, Sweet Potato (Delicata), Table Queen, Faribo Hybrid "R," Rainbow*.
 Swiss Chard—Lucullus*, Rhubarb.
 Tomato—*Early*—Chatham, Firesteel, Faribo Hybrid "E." *Midseason*—Valiant, Stokesdale, Wisconsin 55, Pritchard. *Late*—Marglobe, Rutgers. *Yellow*—Mingold, Jubilee.
 Turnip—Purple Top*, White Globe*, White Milan.
 Watermelon—New Hampshire Midget, Early Kansas, Northern Sweet, Kleckley Sweet.

FRUIT SPRAY PROGRAM FOR MINNESOTA

Complete instructions for the recommended program may be obtained from the Agricultural Extension Division, University Farm, St. Paul 1, Minn.

The following is a suggested condensed program for home growers, designed to provide a reasonable degree of protection using the minimum number of applications and materials. Commercial growers should follow the more detailed recommended program.

Spraying should be done under as high pressure as possible. Regulate the discs of the nozzles so that the spray will be in the form of a mist. Cover the tree thoroughly. Spray at the proper time as a delay of a few days will greatly reduce the effectiveness. Do not spray when blossoms are in full bloom stage.

SPRAY MIXTURES

No. 1	Water	5 gallons
	Lead arsenate	$\frac{1}{2}$ cup
	Fermate	$\frac{1}{2}$ cup
No. 2	Water	5 gallons
	Liquid lime sulfur	$1\frac{1}{2}$ quarts
	(or Dry lime sulfur)	5 cups

APPLES AND PEARS

(Use mixture No. 1 for all sprays)

- FIRST SPRAY: When fruit buds show pink at tips.
 SECOND SPRAY: After three-fourths of the petals have fallen.
 THIRD SPRAY: Five to seven days after the second spray.
 FOURTH SPRAY: Seven to ten days after the third spray.
 FIFTH SPRAY: One week after first maggot flies appear, or about the third week in July.

PLUMS

(Use mixture No. 1 for all sprays)

- FIRST SPRAY: When three-fourths of the petals have fallen.
 SECOND SPRAY: When shucks are starting to fall.
 THIRD SPRAY: If curculio is severe, apply ten days after the second spray.
 FOURTH SPRAY: Ten to fourteen days before harvest or when fruits first begin to color. Omit sticker.

RASPBERRIES

- FIRST SPRAY: When the buds show green at the tips. (Use Mixture No. 2.)
 SECOND SPRAY: When blossoms first show—about one week before bloom. (Use Mixture No. 1.)
 THIRD SPRAY: When, and if powdery mildew appears. (Use $\frac{3}{8}$ cup wettable sulfur in five gallons of water, or apply dusting sulfur with a duster.)

CURREANTS AND GOOSEBERRIES

- FIRST SPRAY: When terminal leaves are $\frac{1}{2}$ to 1 inch long. (Use Mixture No. 1 adding 3 tblsp. nicotine sulfate.)
 SECOND SPRAY: When, and if powdery mildew appears. (Use $\frac{3}{8}$ cup wettable sulfur in 5 gallons of water, or apply dusting sulfur with a duster.)

CONTROL MEASURES FOR SOME COMMON PESTS

5% DDT for These Garden Insects:

- Cutworms—Dust soil areas around plants with either 5% DDT or 5% Toxaphene dust.
Cucumber Beetle—Dust as soon as plants are up. Repeat often.
Cabbage Worm—Apply as soon as worms hatch. Repeat as needed.
Cabbage and Radish Maggot—Dust plants and surrounding soil at frequent intervals when the plants are small.
Flea Beetle—Dust plants as soon as insects are noted.
Gladiolus Thrips—Dust corms when placed in storage. Dust plants at ten-day intervals beginning soon after plants are up.

Dormant Spray—Scale Insects and Plant Lice

Spray woody plants just before the buds open. Use 1 pint of liquid lime sulfur in 1 gallon of water.

Slugs

Trap under boards, or, poison with prepared bait containing metaldehyde such as "Snarol."

Grasshoppers

Dust all foliage in infested area lightly with 5% Chlordane or Toxaphene dust. Will be most effective if applied when the grasshoppers are small.

Red Spider

Spray with wettable sulfur (2 tablespoons in 1 gallon of water), or apply dusting sulfur with a duster.

Potato Pests

To control beetles and leafhoppers apply frequent applications of 5% DDT dust or a spray using 50% wettable DDT powder as directed by manufacturer. For blight control add fixed-copper dust or spray material to the above as directed by manufacturer. Several preparations can be obtained in which DDT and copper are already combined.

Tomato Leaf Spot and Blight

Use fixed-copper dust or spray as recommended by manufacturer. Begin applications early.

Gladiolus Scab

Soak corms 3 to 6 hours in solution of 1 tsp. Lysol in 1 quart of water. Plant while wet. Or, soak 5 minutes in calomel, 1 ounce in 1 gallon of water.

Rust and Mildew

Apply sulfur dust to young plants of snapdragon, hollyhock, rose, delphinium, phlox and zinnia. If the diseases appear on older plants dust every two weeks during the season.

Rose Blackspot

A three-in-one spray such as "Triogen" will control both insects and diseases. Or, dusting sulfur plus 10% lead arsenate may be used; one form is known as Massey's dust. This dust is improved by adding 10% Fermate. Spray or dust once a week or oftener.

Fire Blight

Blighted twigs and cankers should be carefully removed when pruning is done during the dormant season. If a little blight appears during the summer it may be stopped by cutting out affected twigs. Cut several inches below the visible blight and remove the twig without brushing it against others. Sterilize the shears in corrosive sublimate solution. If there is a lot of blight the growth of the tree should be slowed by putting in a cover crop to use excess moisture. Write for leaflet.

Sunscald

Sunscald is a type of winter injury that appears as cankers on the south or southwest side of trunk or limbs. Anything that will keep the sun from shining directly on the trees during the winter will help to prevent sunscald. Wrap the trunk and lower main limbs with aluminum foil. (Such as is used in frozen food storage.)

Dandelions

Apply 2,4-D spray (as directed by manufacturer) in the morning of a clear day when the temperature is above 70 degrees F. One application early in the season should keep the lawn relatively free for the remainder of the season. Later sprays may be applied if necessary. (Warning—keep away from garden plants and shrubbery.)

Moles, Rats

Write for leaflets on control—Bulletin Room, University Farm, St. Paul 1, Minn.

Pocket Gophers

Cut potatoes or carrots into $\frac{1}{2}$ -inch pieces. Dust lightly with mixture of $\frac{1}{8}$ ounce sodium bicarbonate, $\frac{1}{8}$ ounce powdered strychnia alkaloid, $\frac{1}{80}$ ounce saccharine. Place poisoned pieces in runways being careful to exclude all light.—Write for Folder 75, Pocket Gopher Control—Bulletin Room, University Farm, St. Paul 1, Minn.

Rabbits

Wrap the trunk and lower main limbs of young trees with aluminum foil. (Such as is used in frozen food storage.) A repellent paint prepared by dissolving $1\frac{1}{4}$ pounds of powdered rosin in 1 quart of ethyl alcohol is fairly effective when applied to the trunks and main branches of trees.

Mice

Protectors made of $\frac{1}{4}$ or $\frac{1}{8}$ inch mesh galvanized wire placed around trunk of orchard trees at base will help prevent girdling by mice and rabbits. Remove weeds and grass from base of trees and mound earth around trunk. Write to Horticultural Society, University Farm, St. Paul 1, Minn., for information on control of mice in orchards with poison grain and cost of poison grain available through the society.

SOME PLANTING SUGGESTIONS

Plant at the Right Time—Confer with your supplier about the right time for each type of plant. Order early.

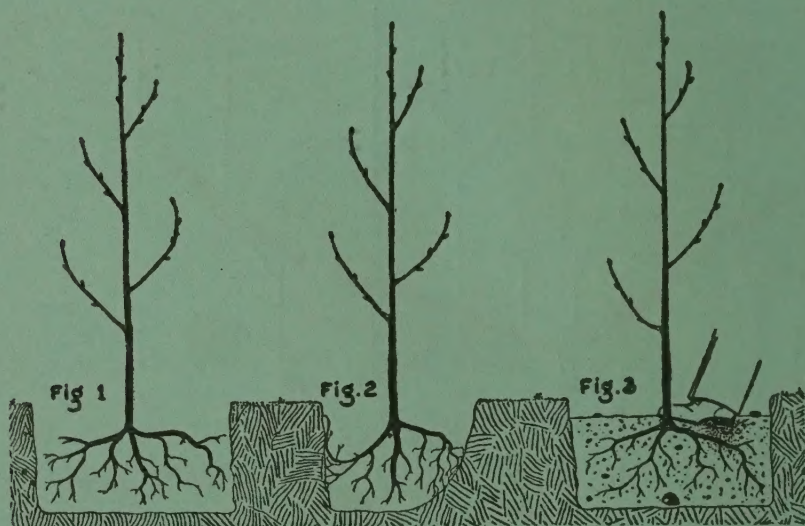
Prepare the Soil—Before the plants arrive have the soil ready. If the soil is too sandy, too hard, or lacking in fertility improve it by adding compost, rotted manure, granulated peat, or other organic material. Do not place commercial fertilizer in direct contact with plants.

Prune if Needed—Most deciduous woody plants (not evergreens) should be cut back severely at the time of planting.

Water Thoroughly—Firm the soil around the plants, leaving a depression for water. Use plenty of water at planting time. Later, water thoroughly but only when needed. Do not keep the soil soggy by too frequent watering.

Be Careful with Evergreens—Do not allow the roots to be exposed at all. Leave the burlap on, loosening at top where the stem protrudes. Do not break the ball.

Protect Your Plants—They cannot compete with dogs, weeds, wind, insects and other garden pests. Protect them at least until well established.



Setting Plants and Trees

When nursery plants are received, open the package at once and plunge the roots into water. Then set them out in permanent place as soon as possible. The proper method of planting is shown in Fig. 1. The hole is large enough to hold the roots without bending as in Fig. 2. In Fig. 3, the heel is used in firming the soil over the roots.